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OMNIA^{log}

&

miniOMNIA^{log}

Export Format

Quick Start Guide

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DATA DOWNLOAD

You can download data (measures, events log, alarms logs) in two ways:

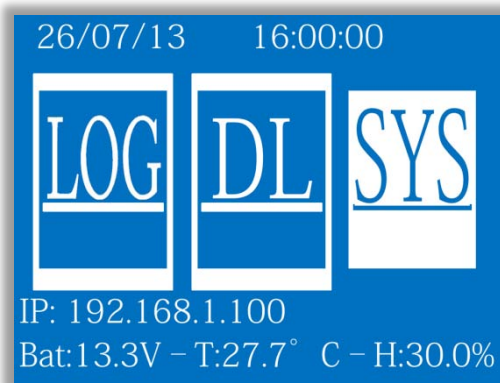
- PC (through web interface)
- USB pen-drive

OMNIAlog

To **download data using a PC** connected to OMNIAlog it is necessary to set the PC network card with the same class of OMNIAlog, but with a different IP address. Through the pages “Data Monitor – Measures, Events, Alarms” you can download files in CSV format (format compatible with the main spreadsheets, i.g. Excel, Numbers, Calc).

To **download data using the USB pen-drive** (supplied):

- Select the SYS menu using the keyboard (Right and Left key) and push “enter”:



- If OMNIAlog is executing an acquisition cycle, it is necessary to wait for it to end. The following screen is displayed during the process:

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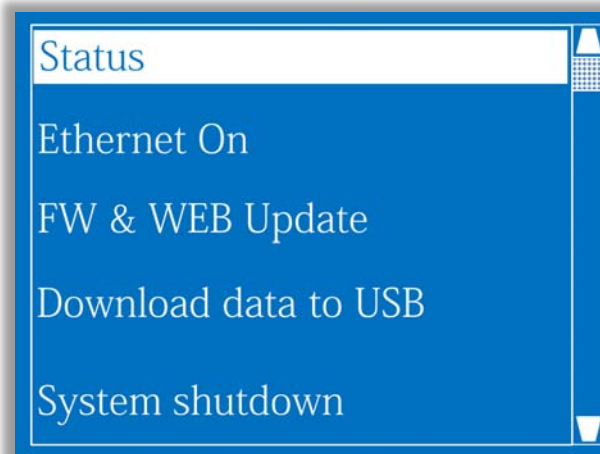
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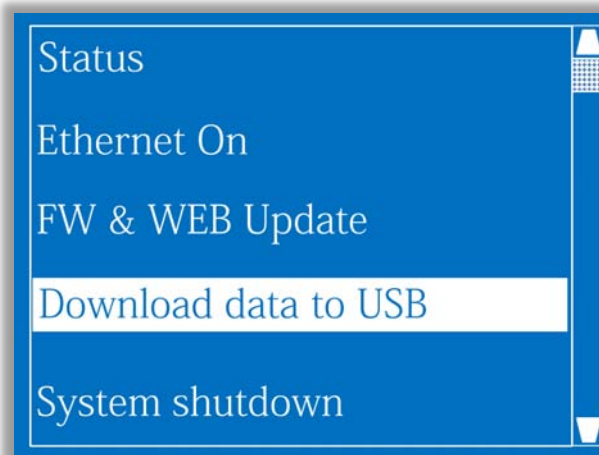
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- When the acquisition cycle ends, the following screen is displayed:



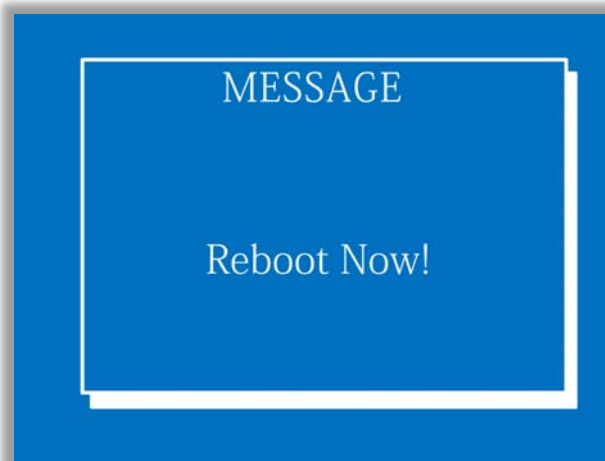
- Using the keys “Up” and “Down”, select “Download data to USB” and push “enter”:



- The following screen is displayed and OMNIAlog OMNIAlog automatically restarts:

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- At the restart you have to insert the USB pen-drive and push “enter” to start data download:



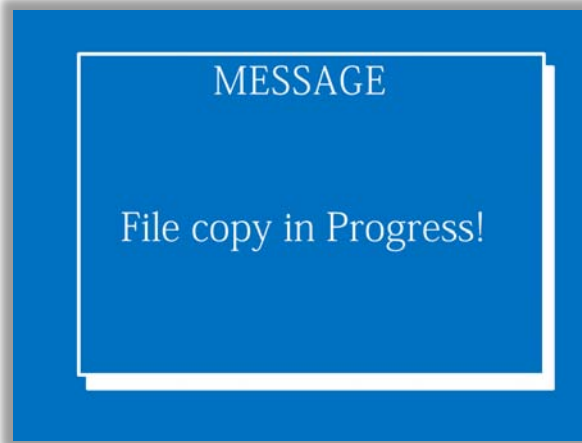
NOTE: the USB pen-drive used for OMNIAlog must be formatted in FAT32. Other formatting types could prevent the acknowledgement of the USB pen-drive and could block the copy of data.

- After the USB pen-drive connection, data copy automatically starts. The copy could take several minutes, depending on the number of acquisitions stored in OMNIAlog.

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During the copy the following screen is displayed:



ATTENTION: During this process it is important to not disconnect the USB pen-drive or remove power supply from OMNIAlog, otherwise the copy of the data could be incorrect.

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- Once the copy ended, this screen is displayed:



- Press “enter” to continue,
- Disconnect the USB pen-drive and push “enter”.



- OMNIAlog automatically again and returns to its previous state (Run, Config or Stop).

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miniOMNIAlog

To **download data using a PC** connected to miniOMNIAlog it is necessary to go on “Data Monitor – Measures, Events, Alarms” pages. You can download files in CSV format (format compatible with the main spreadsheets, i.g. Excel, Numbers, Calc).

To **download data using the USB pen-drive** (supplied):

- put miniOMNIAlog in STOP mode (if not) selecting menu No. 6 on the display.



- Insert the USB flash drive into the USB port on miniOMNIAlog

NOTE: the USB pen-drive used for miniOMNIAlog must be formatted in FAT32. Other formatting types could prevent the acknowledgement of the USB pen-drive and could block the copy of data.

- Select and press menu No.4

ATTENTION: During this process it is important to not disconnect the USB pen-drive or remove power supply from OMNIAlog, otherwise the copy of the data could be incorrect.

- After that, wait the end of download procedure. Remove the USB flash drive only if on the display appears a blinking “0”.

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NOTE: Pay attention that miniOMNIAlog remains in STOP mode after data download. Select menu No.5 to put miniOMNIAlog in RUN mode.

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USB flash drive folder structure

After the copy, you could find a folder with the following format

<dataloggername>Log

within the USB pen-drive used for data download.

Within the folder there are the following 4 “.csv” files:

- **ALog_dd_mm_yy.csv:** in this file there are all the alarms detected from OMNIAlog/miniOMNIAlog;
- **ELog_dd_mm_yy.csv:** in this file are saved the events recorded from OMNIAlog/miniOMNIAlog;
- **MLog_dd_mm_yy.csv:** in this file are saved the measures in log format. There are also other information such as any alarm for the sensors, the measurements unit, the vibrating wire measurements parameters, etc.;
- **MLog_dd_mm_yy.Column.csv:** in this file are saved the measures ordered in columns. This kind of display is suited for data management with spreadsheet.

In the file name “dd” is the day, “mm” is the month and “yy” is the year.

In case of multiple downloads in one single day, the files will be overwritten in order to have always the most updated data.

NOTE: using an USB pen-drive the user can’t choose what to export and so every measure, event and alarm is automatically downloaded. It is possible to choose what to export only using the web interface.

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FILE FORMAT “MLog_dd_mm_yy.Column.csv”

The measurement file “in column” is a CSV file. Every line of the file represents an acquisition cycle while columns vary according to the sensors configured on the datalogger.

Generally the file is composed of a header line and from “N” lines with the measurements.

It is possible to have more header lines if the user changes the datalogger settings without deleting the previous logs.

Example

HEADER CONFIGURATION 1

ACQUISITION 1

ACQUISITION 2

ACQUISITION 3

.....

.....

.....

ACQUISITION N-1

ACQUISITION N

HEADER CONFIGURATION 2 (Change configuration)

ACQUISITION 1

ACQUISITION 2

ACQUISITION 3

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.....

.....

ACQUISITION N-1

ACQUISITION N

The header of the table is composed of:

- A fixed part in every line with information on:
 - Date and time,
 - Battery (datalogger power supply)
 - Temperature (of the datalogger electronic board)
 - Humidity (of the datalogger electronic board)

NOTE: miniOMNIAlog hasn't an integrated humidity sensor. For this reason under this filed there will be "N.C."

- And from a variable part where each column represents a sensor configured on the datalogger.

Example

Date Time	Battery	Temperature	Humidity	AN_01_A	AN_02_A	AN_02_B	AN_03_A
2012\11\30 11:00:35	11.9	23.2	50	0.585	1.234	0.345	
2012\11\30 11:05:35	11.9	23.4	50	0.785	2.543	0.758	9.345
2012\11\30 11:10:35	11.8	23.7	50	0.765	3.543	0.463	

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2012\11\30 11:15:35	11.9	23.4	50	0.985	1.543	0.798	8.345
------------------------	------	------	----	-------	-------	-------	-------

NOTE: The sensor AN_03_A is acquired every 10 minutes while the other sensors are acquired every 5 minutes.

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FILE FORMAT “MLog_dd_mm_yy.csv”

The measurement file ‘log’ is a CSV format file. A sensor log can be of one or more lines.

The following columns are on each line:

Field	Description
Date Time	Date and time of sensor reading, the fields are divided by a space. Format: YYYY\MM\DD HH:MM:SS Ex:2012\11\30 12:14:14
Battery [Unit] Unit: ▪ % ▪ V	Datalogger power voltage. ▪ If the datalogger is powered from a battery, it is expressed in percentage. Format: XX ▪ If the datalogger is powered externally, its value is shown as a number with a single decimal digit. Format: XX.d
Temperature	Datalogger electronic board temperature sensor [°C] Format: XX.d
Humidity	Datalogger electronic board humidity sensor [%] Format: XX <i>Always N.C. for miniOMNIAlog.</i>
Sensor Type	The following values are possible: ▪ Analog ▪ Multiplexer ▪ Digital ▪ Digital IN ▪ VirtualCH
Channel	Number
Description INA	String
Identification INA	String
Description INB	String
Identification INB	String

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Measurement Type	The following values (depending on the language configured on datalogger, following the values in English language) are possible: ▪ 4-20mA Transmitter (3-4 wires) 2CH (<i>not for miniOMNIAlog</i>) ▪ Voltage 2CH (<i>not for miniOMNIAlog</i>) ▪ Potenziometer 2CH (<i>not for miniOMNIAlog</i>) ▪ Servo Inclinomater 2CH (<i>not for miniOMNIAlog</i>) ▪ Vibrating Wire +Thermistor (NTC) ▪ 4-20mA Current loop (2 wires) ▪ 4-20mA Transmitter (3-4 wires) ▪ Voltage ▪ Ratiometric (6 wires) ▪ RTD (Pt100) (<i>not for miniOMNIAlog</i>) ▪ Thermistor (NTC) ▪ Servo Inclinomater (<i>not for miniOMNIAlog</i>) ▪ Multiplexer (<i>not for miniOMNIAlog</i>) ▪ Uniaxial (digitalized sensor) ▪ Biaxial (digitalized sensor) ▪ Trigger (<i>not for miniOMNIAlog</i>) ▪ Rain Gauge (<i>not for miniOMNIAlog</i>) ▪ Wind Gauge (<i>not for miniOMNIAlog</i>) ▪ Virtual Channel
Measure INA	Float. The decimal numbers can range from 1 to 3.
U.M.	String (unit of measurements)
Measure INB	Float. The decimal numbers can range from 1 to 3. ▪ If the sensor has only one entry, this field is equal to NaN ▪ If the measurement type is Vibrating Wire-Thermistor, this field represents the temperature value read from the sensor (thermistor).
U.M.	String (unit of measurements)
Alarm	Two values are possible: NOALARM – if the sensor is not in alarm ALARM – if the sensor is in alarm
Quality	Shows the quality of a vibrating wire sensor signal. Its values are from 0 (minimum quality) to 9 (maximum quality)
Excitation	Shows the value of the parameter “Excitation” configured from the user for the reading of the vibrating wire sensor. It ranges from 20 to

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	500 [msec].
Delay	Shows the value of the parameter “Delay” configured from the user for the reading of the vibrating wire sensor. It ranges from 5 to 100 [msec].

NOTE: For digitalized sensors, for Uniaxial or Biaxial measurements, the sensor log is made of two lines. The first line is the sensor value while the second one represents the temperature.

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FILE FORMAT “ELog_dd_mm_yy.csv”

The file with the events list recorded from OMNIAlog/miniOMNIAlog is in CSV format. Every event is on one line.

For example:

Date and Time	Account	Event
2013\05\24 13:38:33	Admin	Read now acquisition
2013\05\24 13:38:33	Datalogger	Default Calibration: Vref
2013\05\24 13:43:18	Admin	Meas. settings; Meas. set: Standard
2013\05\24 13:43:18	Admin	Meas. settings; Quick meas.: No
2013\05\24 13:43:18	Admin	Meas. settings; Warmup rele: 100
2013\05\24 13:43:18	Admin	Meas. settings; average adc num: 4
2013\05\24 13:43:18	Admin	Meas. settings; Num rele sim: 6
2013\05\24 13:43:18	Admin	Meas. settings; rele times: 4
2013\05\24 13:43:18	Admin	Meas. settings; adc speed: 5SPS
2013\05\24 13:43:18	Admin	Meas. settings; rele download: No
2013\05\24 13:43:18	Admin	Meas. settings; rele reset: No
2013\05\24 13:43:18	Admin	Meas. settings; analog switch off: No

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2013\05\24 13:43:18	Admin	Meas. settings; humidity alarm: No
2013\05\24 13:43:18	Admin	OMNIAlog start
2013\05\24 13:43:18	Datalogger	Acquisition started
2013\05\24 13:43:18	Datalogger	Script started: M:\SCRIPT\SCRIPT1.TXT
2013\05\24 13:43:18	Datalogger	Default Calibration: Vref

Date and time: date and time of the event. The first line shows the older event.

Account: shows which account created the event (User, Admin). The account 'Datalogger' indicates that the event has not been performed from a user, but from OMNIAlog/miniOMNIAlog .

Event: shows event description.

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FILE FORMAT "ALog_dd_mm_yy.csv"

The file includes OMNIAlog/miniOMNIAlog alarms list and is in CSV format. Every alarm is on a line.

For example:

Code INA	Code INB	Type	Description INA	Description INB	Date and Hours	Sensor
32	0	DATALOGGER	Modem answer error	eALR_EVT_NONE	2013\03\11 09:11:47	Ch: 0
32	0	DATALOGGER	Modem answer error	eALR_EVT_NONE	2013\03\11 09:12:07	Ch: 0
32	0	DATALOGGER	Modem answer error	eALR_EVT_NONE	2013\03\11 09:14:30	Ch: 0
31	0	DATALOGGER	eALR_EVT_MODBUS_TIMEOUT	eALR_EVT_NONE	2013\03\11 09:30:32	Digital Ch: 1
31	0	DATALOGGER	eALR_EVT_MODBUS_TIMEOUT	eALR_EVT_NONE	2013\03\11 09:30:34	Digital Ch: 2
31	0	DATALOGGER	eALR_EVT_MODBUS_TIMEOUT	eALR_EVT_NONE	2013\03\11 09:30:36	Digital Ch: 3
31	0	DATALOGGER	eALR_EVT_MODBUS_TIMEOUT	eALR_EVT_NONE	2013\03\11 09:30:38	Digital Ch: 4
31	0	DATALOGGER	eALR_EVT_MODBUS_TIMEOUT	eALR_EVT_NONE	2013\03\11 09:30:40	Digital Ch: 5
31	0	DATALOGGER	eALR_EVT_MODBUS_TIMEOUT	eALR_EVT_NONE	2013\03\11 09:30:43	Digital Ch: 6
31	0	DATALOGGER	eALR_EVT_MODBUS_TIMEOUT	eALR_EVT_NONE	2013\03\11 09:30:45	Digital Ch: 7

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INA Code: reference code assigned to the alarm for the entry INA (see manual “CODE LIST: Errors – Alarms – Events” for further details);

INB Code: reference code assigned to the alarm for the entry INB (see manual “CODE LIST: Errors – Alarms – Events” for further details);

NOTE: if the alarm does not refer to a sensor, the reference code is displayed in the column “INA Code”.

Type: shows if the alarm is connected to the overcoming of sensors alarm threshold (Label: Sensor) or if it is an alarm connected to OMNIAlog/miniOMNIAlog (Label: Datalogger);

INA: description of the alarm for entry INA;

INB description: description of the alarm for entry INB;

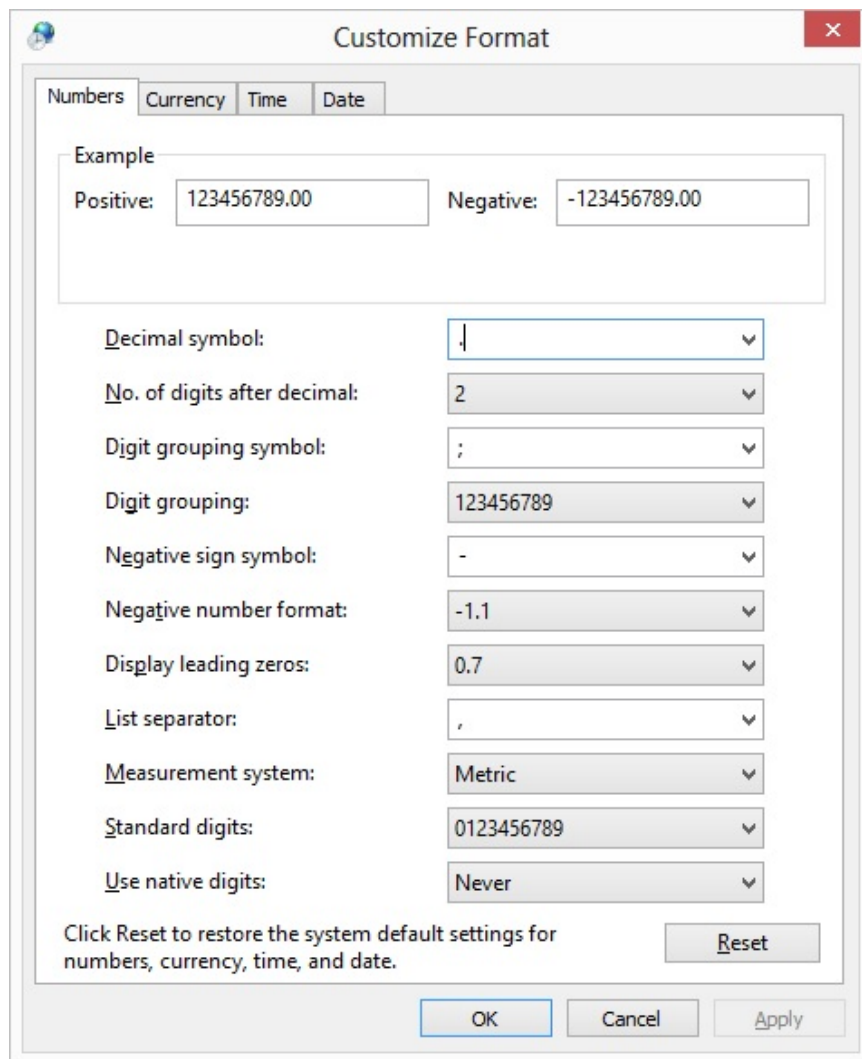
Date and time: shows date and time of the alarm;

Sensor: shows the sensor who generated the alarm. In case the alarm is not generated by a sensor, it is displayed “Ch: 0”

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PC INTERNATIONAL SETTINGS (Region).

To correctly see the “.CSV” file exported from OMNIAlog, with the values divided by a comma, set the PC INTERNATIONAL SETTINGS as shown:



Customize Format

Numbers | Currency | Time | Date

Example
Positive: 123456789.00 Negative: -123456789.00

Decimal symbol: .

No. of digits after decimal: 2

Digit grouping symbol: ;

Digit grouping: 123456789

Negative sign symbol: -

Negative number format: -1.1

Display leading zeros: 0.7

List separator: ,

Measurement system: Metric

Standard digits: 0123456789

Use native digits: Never

Click Reset to restore the system default settings for numbers, currency, time, and date.

Reset

OK Cancel Apply

Pay attention to:

“Decimal separator”: . (dot)

“Digit grouping symbol :” ; (semicolon)

“List separator:” , (comma)